

INTRODUCTION

The City of Burbank Building Division sponsors the Student Design Competition each year in collaboration with Burbank Water and Power and the Burbank Recycle Center to provide an opportunity for high school students in the City to creatively explore the areas of building design, site planning, transportation, community services and redevelopment. Last year, Woodbury University joined the City as a partner in the competition.

The sponsors of the competition comprise professionals who have many years of experience and understanding in architecture and construction. The contest is an ideal opportunity for students to interact with City staff and Woodbury faculty and students in order to gain knowledge of and exposure to design, construction, and basic City operations.

The competition focuses on the fields of architecture and construction but is not limited to students interested in only those subjects. Students with interests in art, photography, environmental issues, graphic design, urban planning, local government, and computer design are also encouraged to participate. A wide range of media may be used to solve the design problem in creative ways.

The project focuses on design of a single family dwelling in a different topographical setting each year. Working with a house design encourages creative thinking about a familiar use and building type. It requires analyzing climate, materials, site circulation, relationships between functions, massing of building forms, materials, and aesthetics. Participants may enter as individuals or as a team.

Even though cities have regulations and restrictions that determine how close a building can be to the property line, how much area is allowed to be built on a site and the maximum height and area in relation to the size of the lot, these restrictions will **not** apply to this project. This competition will be an exercise in creative expression of building design and site use. Since a house can be a very personal reflection of who the inhabitants are and the aesthetic preference of the designer, the project program has been left open to the discretion and creativity of the designer.

IMPORTANT DATES:

January 11, 2013	Deadline to submit registration forms
January – February 2013	Interactive meetings with City staff and sponsors, to be arranged
February 19, 2013	PROJECT SUBMITTAL DEADLINE. (In order to be fair to all applicants, <u>no</u> extensions can be given.)
February 28, 2013 (tentative)	Recognition Party: Announcement of awards at the Community Services Building
March 5 <u>or</u> 12, 2013	City Council Presentation (Exact date to be determined pending Council's calendar).

AWARDS:

A panel from the Burbank community including architects, council members and representatives from the creative industry will judge based on their interpretation of a project's:

- Design and creativity: How unique is the solution?
- Presentation quality and workmanship: How clear are the presentation boards and model?
- Program: Does the project fulfill the program and environmental requirements?

The Burbank Water & Power-Recycle Center Environmental Scholarship is awarded based on creativity, the overall design and use of environmentally beneficial features such as recycled materials, rainwater capturing, and composting (See **Pages 8-10**). Also, is the house an energy efficient building that addresses the solar orientation, cooling/heating needs, and wind/sun protection of the site?

First Place	\$ 1,500 per team
Second Place	\$ 1,000 per team
Third Place	\$ 500 per team

All participants will receive Gift Cards and Certificates of Participation after their project is turned in. The winners will be recognized at a Tuesday night meeting of the City Council in March 2013.

THIS YEAR'S PROGRAM

Burbank is home to some of the biggest entertainment and creative media companies in the world: Cartoon Network, Nickelodeon, The Walt Disney Co. and Warner Bros. These four companies have created hundreds of animated and live-action characters in countless cartoons, TV shows and movies. Imagine that you were asked to design a house for one of these characters. What would you design to meet the specific needs and personality of your character? **The theme of this year's contest is a single-family residence on hillside property in Burbank for your favorite live or animated character from a cartoon, TV show or movie.**

- The house should be situated on a fictitious lot located in the hills above Burbank. **Figure A** in the program shows a plan view of the lot, its dimensions and topography which can be used as reference in determining where the house will be located on the site.
- **Figures B and C** show examples of cuts through the site and give possible locations for the house, but placement is not limited to only these locations.
- The structures may be located on the flat part of the lot, nestled into the slope or cantilevered over the edge on columns.

PROJECT REQUIREMENTS

1. There is no restriction on the number, size or use of rooms. The house should be large enough to accommodate a living room, bathroom, kitchen, dining area, and a bedroom.
2. There is also no specific monetary budget for the house design and construction.
3. In order to qualify for the Environmental Scholarship, the project needs to include at least the following three Environmental Features: 1. Recycled materials, 2. Rainwater collection, and 3. Composting. See **Pages 8 - 10** for information on how to show these features on the plans.

4. Write a brief one paragraph description of your design, highlighting any unique features. Also mention the environmental features from Number 3 above and include a sentence that “the house addresses energy efficiency by using the site’s solar orientation, maintaining the maximum use of the sun’s heat, and protecting the house from the cold north winds.” Attach this narrative to your presentation board.

5. Be creative!

The final presentation and submittal should clearly show how the house will function based on the location of the rooms and the circulation, and the relationship between the spaces inside and outside of the structure. This can be achieved by any or all of the following methods:

- Hand drafted or computer generated floor plans and exterior elevations, drawn to scale
- Photos or magazine cut outs of building elements that would apply to the design,
- Perspective drawings or renderings of the house using pencil, marker, paint, charcoals, pastels or as a collage of materials used in either an abstract or realistic way.
- A foam board or cardboard model that shows the shape and massing of the house, window and door openings, and the roof line. The model does not have to show the furniture layout.

SUBMITTAL MATERIALS

This is the list of the actual items required for submittal. Examples of each item are provided on the next page. **EACH PARTICIPANT WILL TURN IN ONE PRESENTATION BOARD AND ONE MODEL.**

1. **Presentation Board:** made of foam board or cardboard. Most students use either a 24” x 36” tri-fold presentation board or 32” x 40” foam core boards. These can be purchased from Michaels, Aaron Brothers or an art supply store. Samples of board layouts are shown on **pages 6 - 7**. On the board, include the following drawings and information:

- FLOOR PLAN(S) of the house with notation of three environmental features – use of recycled materials, rainwater harvesting and composting. See **pages 8-10** for more help on how to draw the environmental features on the plans and model.
- ELEVATIONS of the house from two sides - the front as seen looking toward the hill and one side. The front view of the house can be labeled FRONT VIEW ELEVATION. The side view of the house can be labeled SIDE VIEW ELEVATION. You may redraw or superimpose your drawings on the sections shown in **Figures B and C** on **page 5**.
- SITE PLAN: Using **Figure A** on page 4, outline and shade in the area where the house will be located on the site and attach it to your presentation board. Label this drawing as SITE PLAN.
- NARRATIVE: Write a brief one paragraph description explaining your design and any unique features. Also mention the environmental features included in the design. Attach this narrative to your presentation board.

2. **Model:** A foam core or cardboard physical model of the house situated on its site. The model should be mounted on a sturdy cardboard or foam board. See sample on **page 7**. The model may be any size of the designer’s choosing but does not need to be bigger than a 24” x 36” presentation board. *Applicants may receive assistance from those outside of the school faculty such as an architect, or engineer, but this person’s name must be included on the application form as an Advisor.*

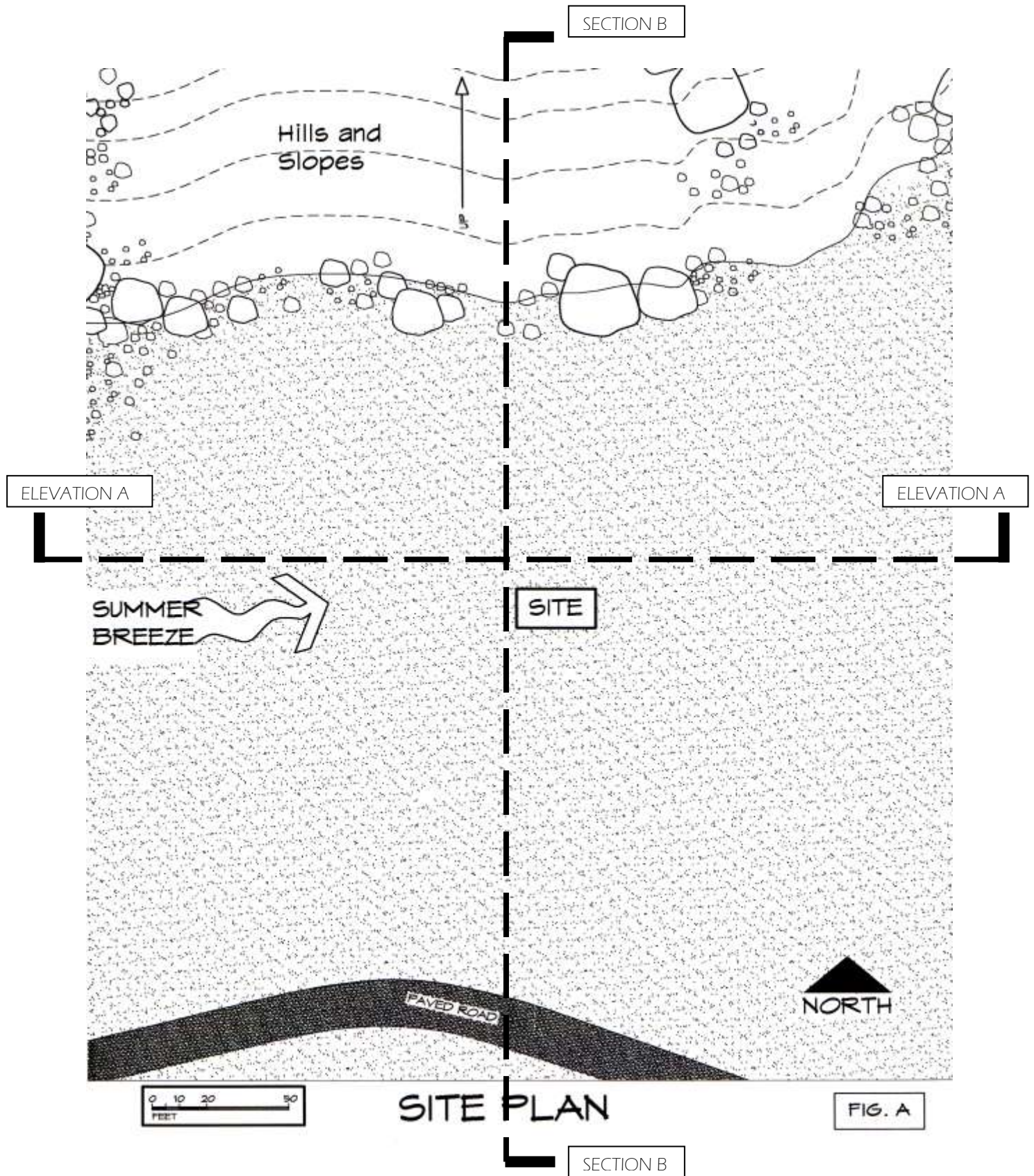


Figure A PROVIDE AN OUTLINE OF YOUR HOUSE ON A REPRODUCTION OF THE SITE PLAN ABOVE AND ATTACH IT TO YOUR PRESENTATION BOARD

ELEVATION A

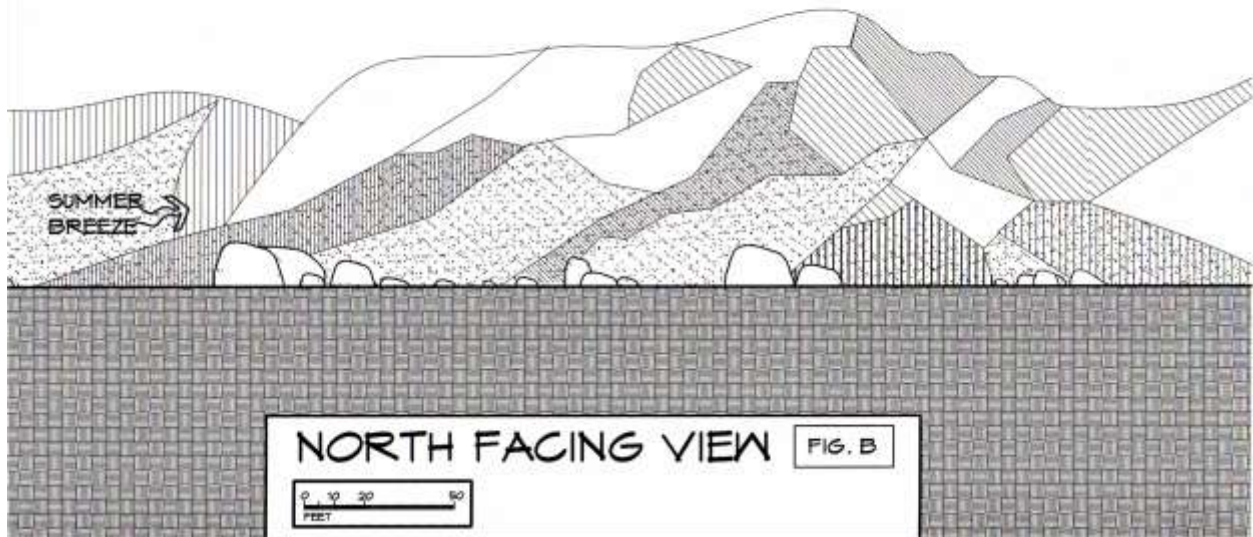


FIGURE B – USE THIS ELEVATION AS A BACKDROP FOR YOUR HOUSE. BY SHOWING A THE FAÇADE SUPERIMPOSED ON THIS VIEW. ATTACH TO PRESENTATION BOARD.

SECTION B-B

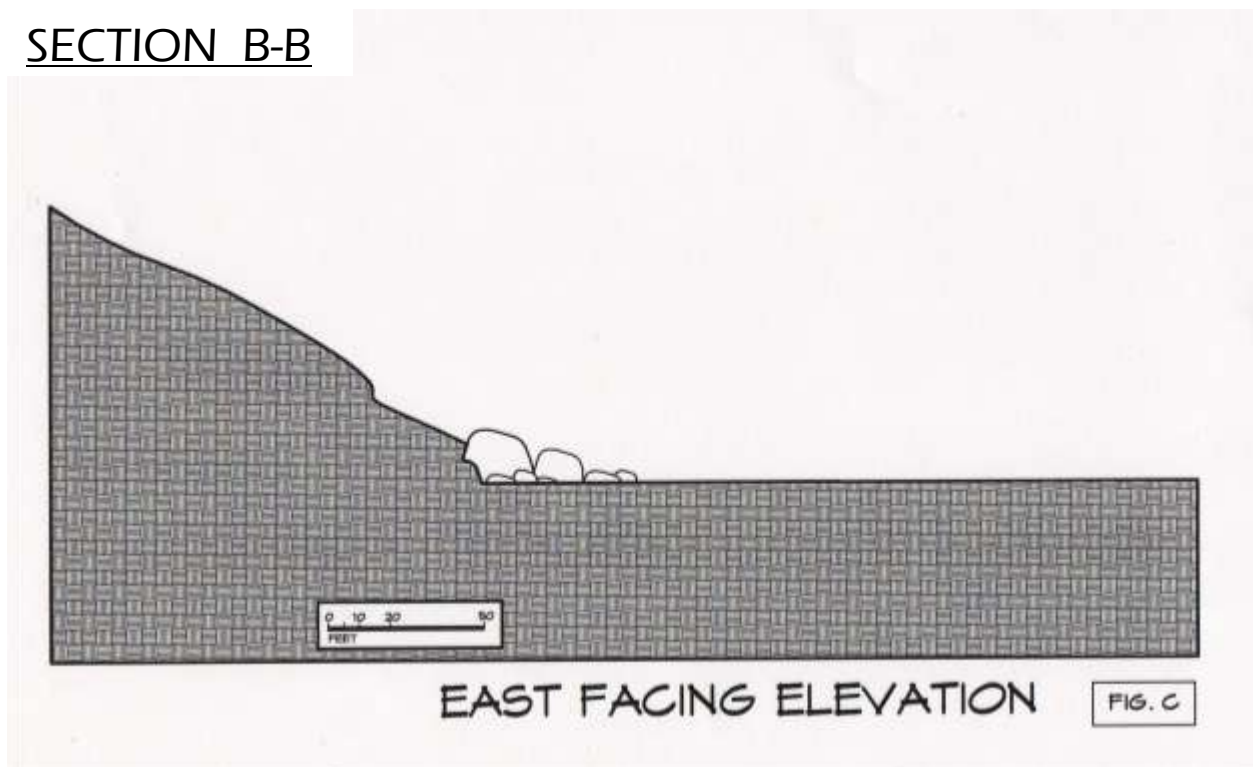
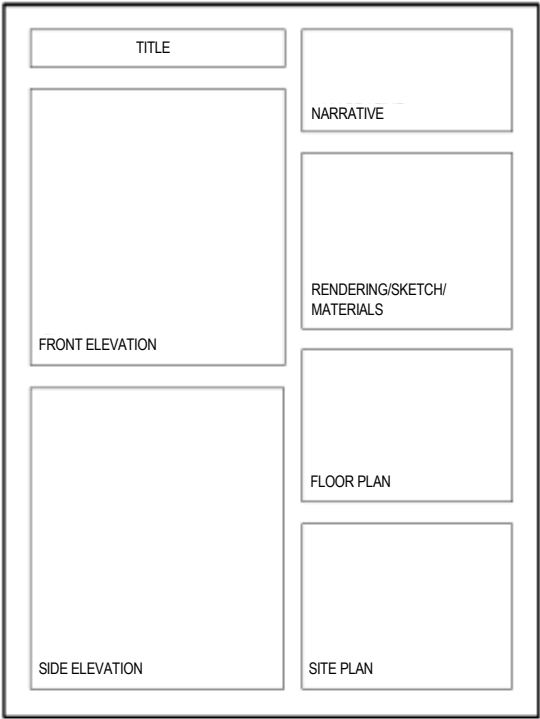
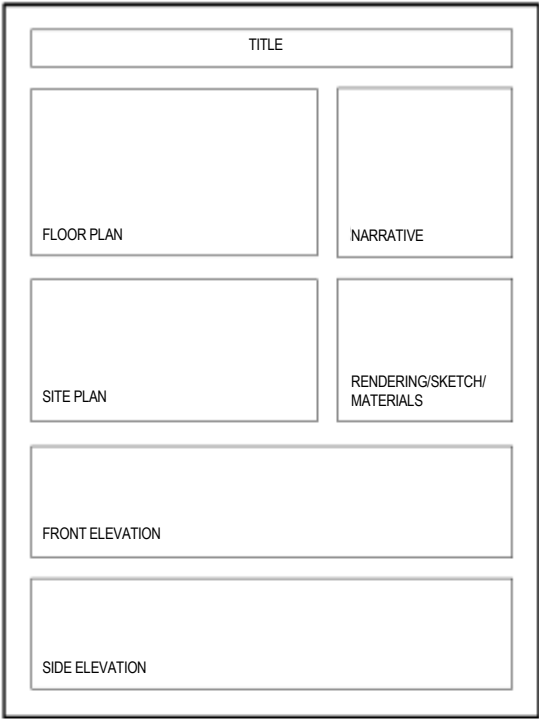
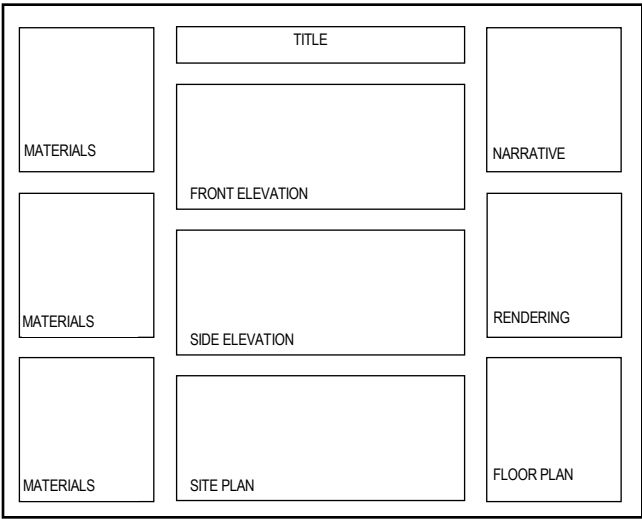
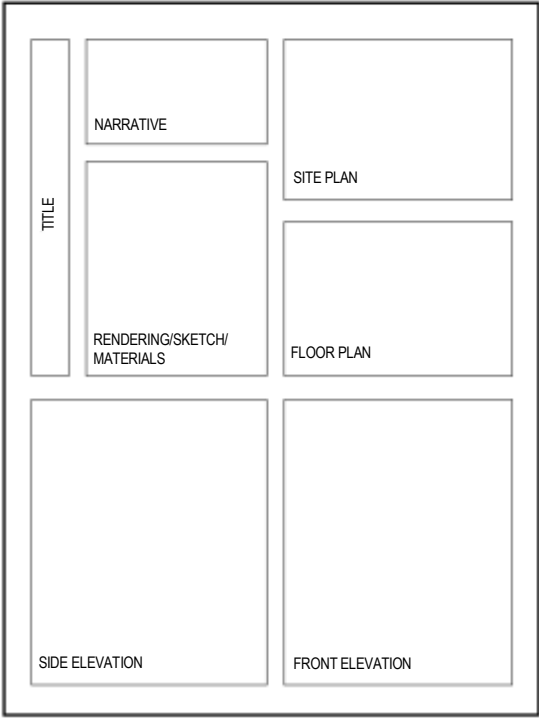


FIGURE C – SUPERIMPOSE A SIDE VIEW OR SECTION OF YOUR HOUSE ON THIS BACKGROUND AND ATTACH TO YOUR PRESENTATION BOARD.

FIGURE D. SAMPLE PRESENTATION BOARD LAYOUTS

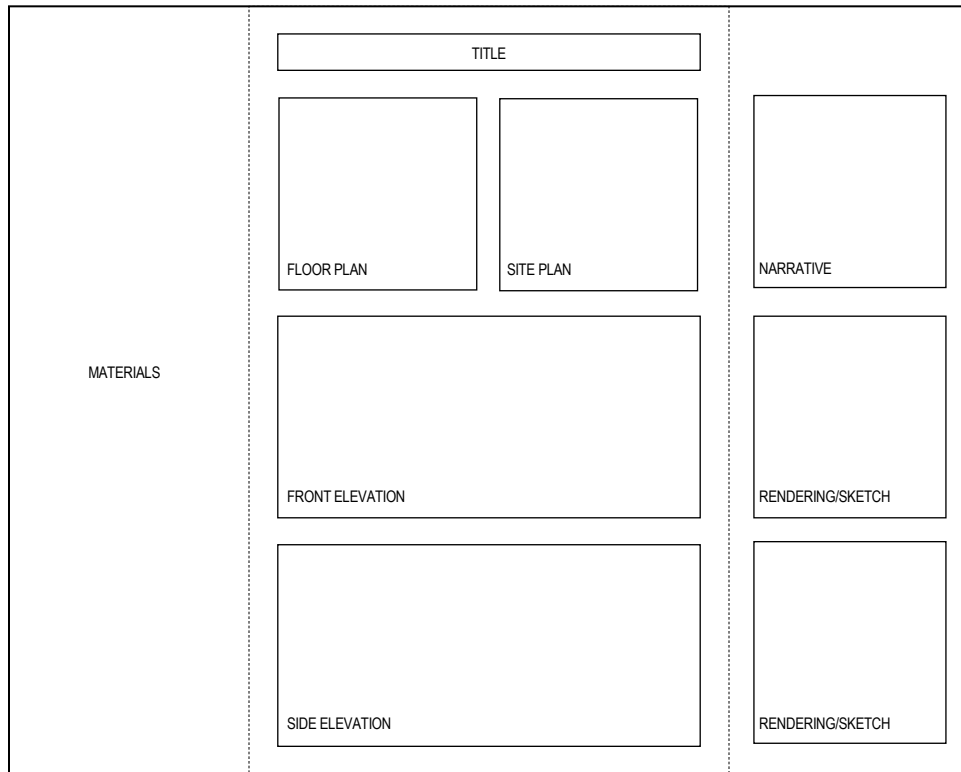


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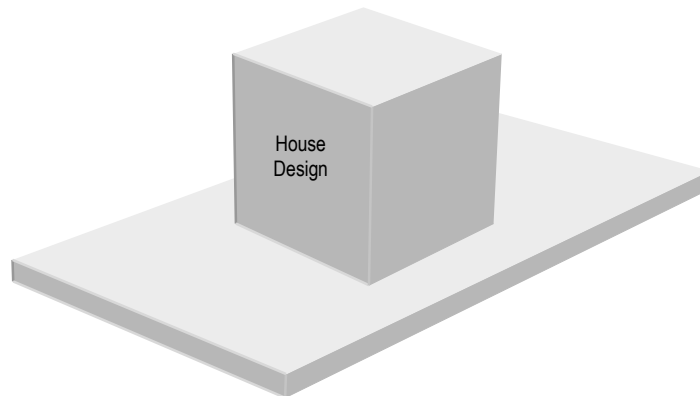


EXAMPLE OF 32" X 40" SINGLE BOARD

EXAMPLES OF SINGLE BOARDS



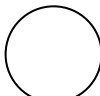

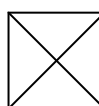
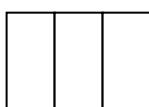
EXAMPLE OF TRI-FOLD BOARD LAYOUT



EXAMPLE OF MODEL BASE

The base is typically made from an approximately 24" x 36" white or black foam board which is available in thicknesses from 1/8" to 1/2". The base could be made thicker by building up the surface with layers of cardboard to create contours representing the slope of the hill

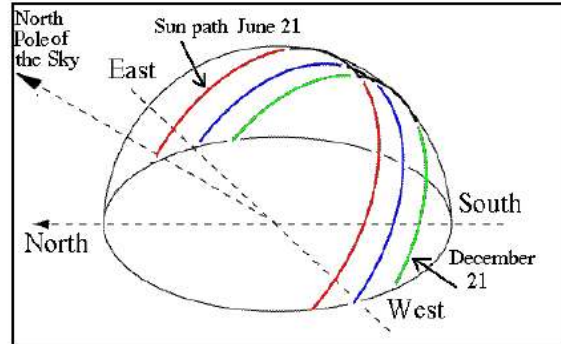
ENVIRONMENTAL FEATURES:

<u>Features REQUIRED to qualify for the Environmental Scholarship</u>	<u>How to Show on Plan</u>
1. Recycled Materials. The best way to reduce the energy used to produce the construction materials and the negative impact waste disposal has on the environment is to re-use more and recycle everything possible. Recycled-content materials such as roofing, gypsum board, siding, and even paint are readily available.	Add note to the plan: "The project will use materials with recycled content for a minimum of 10% of the project."
2. Rainwater Harvesting. In a rainwater collection system, rainwater that lands on a home's roof is collected in roof gutters and downspouts that divert the water to filtration device before it arrives in a cistern located either above or below ground. The stored water can be pressurized and piped to an irrigation system for landscaping. The cistern can be shown on the floor plan as a 24" circle next to the exterior wall of the house.	Use this symbol on the floor plan and label:  Cistern
3. Composting. Composting is the process of speeding up the decaying of organic matter for use as garden soil. The bacteria and fungi that reside in the compost pile or bin devour yard and household organic waste, producing organic fertilizer.	Use this symbol on the floor plan and label:  Compost Bin
<u>OPTIONAL Features</u>	<u>How to Show on Plan</u>
4. Sun Path. The sun rises in the east and sets in the west. The building's south side receives the most sun, with the north wall not receiving direct sunlight. In the summer, the sun's path is longest, and so are the days. In the winter, the sun's path is shortest, and so are the days.	Orient the house so that the north wall
5. Wind Power. The wind farm in the San Geronio Mountain pass, for example, provides enough electricity for Palm Springs and the entire Coachella Valley. Each of the 4,000 windmills produces 300 kilowatts of power by transforming the kinetic energy of the wind into mechanical or electrical energy. The windmills require an average wind speed of at least 13 mph to operate. The largest stands 150 feet tall, weighs 45,000 pounds, and costs approximately \$300,000.	Use this symbol on the floor plan and label:  Windmill
6. North winds. Protecting the house from cool north winds helps to save energy used for heating during the cooler months.	Orient house so that the north side is relatively close to trees or a vertical barrier.
7. Solar photovoltaic panels. Photovoltaic technology is a renewable source of energy where semiconductors convert solar radiation into direct current electricity. Photons of light charge electrons into a higher state of energy allowing them to carry electric current. Solar panels composed of a number of solar cells are typically mounted on the roof at angle facing north or on the north-facing slope of a roof.	Photovoltaic panels are mounted in arrays of multiple panels on the roof.  Solar Panels on the Model can be shown with black film or paper

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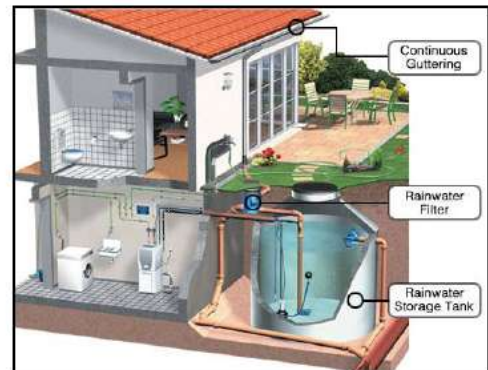


Sun Path. The sun rises in the east and sets in the west. The south side of the building receives the most sun, with the north wall not receiving direct sunlight. In the summer, the sun's path is longest, and so are the days. In the winter, the sun's path is shortest, and so are the days.



Rainwater Harvesting & Greywater Systems

Rainwater that lands on a home's roof is collected in roof gutters and downspouts that divert the water to filtration device before it arrives in a cistern, which is located either above or below ground. The stored water can be pressurized and piped to an irrigation system for landscaping. In an approved greywater system, water used by clothes washers and bathroom sinks and showers is diverted through a filtering system and reclaimed for landscape irrigation.

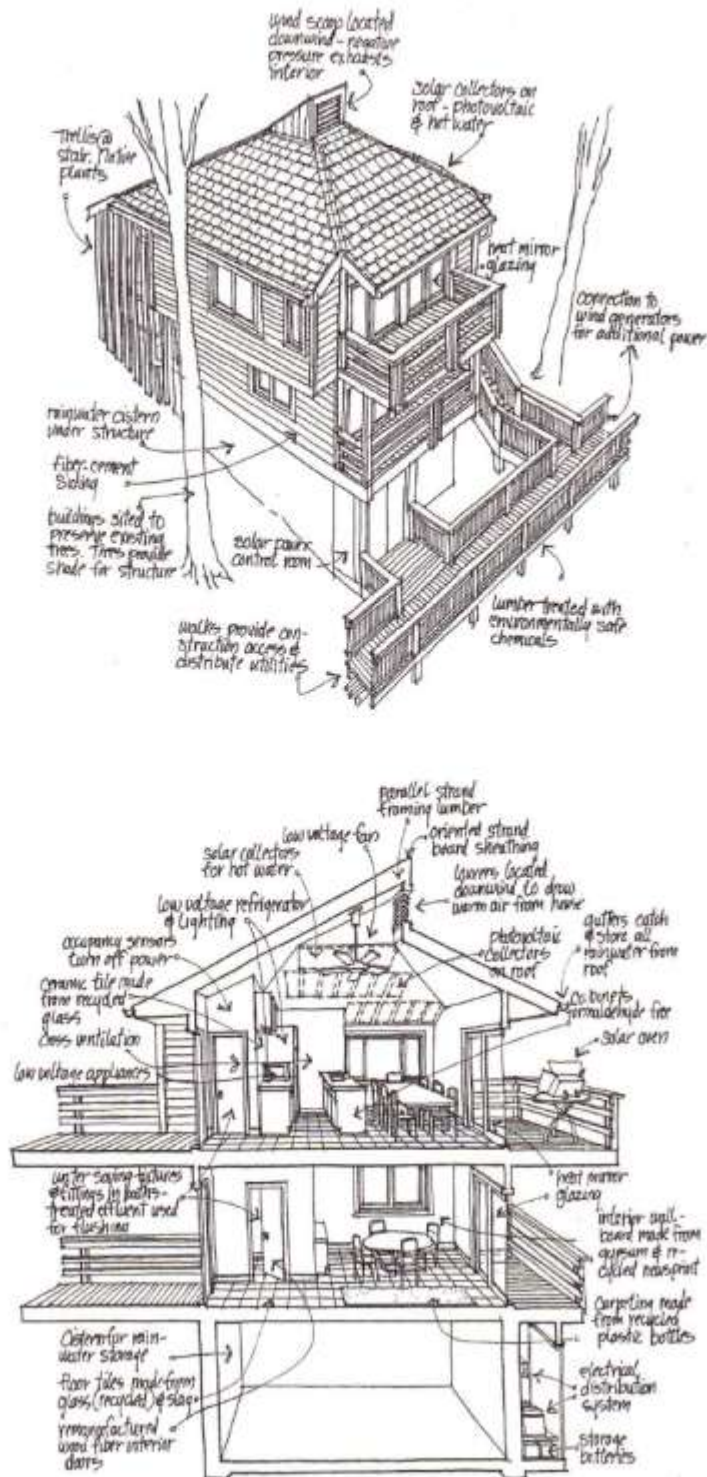


Recycled Materials. The best way to reduce the energy used for production of construction materials and the negative impact waste disposal has on the environment is to re-use more and recycle everything possible. Recycled-content materials such as roofing, gypsum board, siding, and even paint are readily available.

Composting is the process of speeding up the decaying of organic matter for use as garden soil.



ENVIRONMENTAL DESIGN ELEMENTS:



HILL HOUSES



Chemosphere House by John Lautner. Hollywood Hills, 1960.



Pacific Palisades House, 2004. By Johnston Marklee & Associates



Elrod House by John Lautner, Palm Springs, 1968



Mill Valley House, Northern California, 2009. By McGlashan Architecture



(Left) **Grand Creek Residence**, Montana. Designed by Heliotrope Architects. (Right) **Casa V House**, Bogota, Columbia. Designed by Felipe Mesa and Giancarlo Mazzanti.

SAMPLE PROJECTS FROM PREVIOUS CONTESTS

Lake House contest 2011 - 2012



Mountain Plateau House 2007

